

STUDIES IN THE EUPATORIEAE (ASTERACEAE). XLI.

THE GENUS, EUPATORIASTRUM.

R. M. King and H. Robinson
Smithsonian Institution, Washington, D.C. 20560.

A critical review of Eupatoriastrum reveals a natural group of three species characterized by large many flowered heads with interspersed paleae, by somewhat shortened anther appendages, and by broadly triangular to nearly orbicular leaves which are larger and sometimes deeply cleft nearer the base of the plant. The diversity between the three species in size, form of leaves, corolla pubescence, anther appendages, and details of the pappus and carpodium indicates thoroughly distinct lines of development. Corolla structure and the short sometimes grooved anther appendages suggest closest relationship to the large genus Koanophyton.

Eupatoriastrum Greenm., Proc. Amer. Acad. 39: 93. 1903.

Shrubs or subshrubs, few branched. Leaves opposite, petioled, blades deltoid or ovate, basal leaves sometimes deeply lobed, margins serrate. Inflorescence a very loose panicle. Involucre of ca. 50 phyllaries in 3-5 series; receptacle highly; 100-300 flowers per head, 100-300 pales per head. Corollas tubular, 5-lobed, outer surface of corolla glabrous below, lobes about as long as wide with short stalked glands, with or without setae, tips slightly papillose; stomates absent; inner surface of corolla tube glabrous. Anther collar slender composed mostly of rectangular cells with numerous transverse thickenings; anther appendages short, composed of rather large cells. Style base without enlarged node, glabrous; stylar appendage somewhat enlarged especially near the tip, mammillose. Achenes prismatic, 4-5 ribbed with numerous setae, carpodia distinct, of quadrate cells with thin or slightly thickened walls. Pappus of 15-35 scabrous setae, apical cells acute.

Type species: Eupatoriastrum nelsonii Greenm.
Chromosome number not determined.

Our studies indicate that the genus contains the following three species.

Eupatoriastrum angulifolium (B.L.Robinson) R.M.King & H.Robinson,
comb. nov. Eupatorium angulifolium B.L.Robinson, Contr.
Gray Herb. n.s. 65: 46. 1922. Guatemala, Mexico.

Eupatoriastrum nelsonii Greenm., Proc. Amer. Acad. 39: 93. 1903.
El Salvador, Mexico.

Eupatoriastrum triangulare (A.P.Decandolle) B.L.Robinson, Contr.
Gray Herb. n.s. 68: 34. 1923. Bulbostylis triangularis A. P.
Decandolle, Prodr. 7: 268. 1838. Eupatorium vitifolium
Schultz-Bip. ex Klatt, Leopoldina 20: 90. 1884. Mexico.

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